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DESCRIPTORS- *ANNOTATED BIBLIOGRAPHIES, *BIBLIOGRAPHIES, *BEHAVIORAL SCIENCE RESEARCH, *HUMAN RELATIONS, *LABORATORY TRAINING, RESEARCH METHODOLOGY, INTERACTION PROCESS ANALYSIS, GROUP DYNAMICS, INTERPERSONAL RELATIONSHIP, T GROUPS, SENSITIVITY TRAINING, SELF CONCEPT, PERSONALITY CHANGE, BEHAVIOR CHANGE, GROUP STRUCTURE, PARTICIPANT CHARACTERISTICS, ORGANIZATIONAL CHANGE, CHANGING ATTITUDES,

THIS BIBLIOGRAPHY OF RESEARCH IN HUMAN RELATIONS TRAINING IS PRESENTED IN TWO SECTIONS. THE FIRST PART INCLUDES AN ANNOTATED BIBLIOGRAPHY OF RESEARCH CONDUCTED BETWEEN 1947 AND 1960. IT WAS PREPARED BY LEWIS E. DURHAM AND JACK R. GIBB AND CONTAINS 48 CITATIONS. THE SECOND PART, PREPARED BY ERIC S. KNOWLES, INCLUDES RESEARCH SINCE 1960. IT INCLUDES A BIBLIOGRAPHY OF 76 CITATIONS AND AN ANNOTATED BIBLIOGRAPHY OF 52 STUDIES. SUBJECT AREAS COVERED INCLUDE T-GROUPS, GROUP STRUCTURE AND DYNAMICS, INTERPERSONAL RELATIONSHIP AND COMPETENCE, SELF CONCEPT, PERSONALITY CHANGE, BEHAVIOR AND ATTITUDE CHANGE, AND ORGANIZATIONAL CHANGE. (PT)

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# E X P L O R A T I O N S

Human Relations Training

and Research

Number Two - 1967

## A Bibliography of Research

1947-1960 - Lewis E. Durham and Jack R. Gibb

Since 1960 - Eric S. Knowles

NTL Institute for Applied Behavioral Science
Associated with the National Education Association
1201 Sixteenth Street, N.W., Washington, D.C. 20036

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- Eric S. Knowles

## A. An Annotated Bibliography of Research - 1947-1960

Compiled by Lewis E. Durham and Jack R. Gibb*

Back, K. W. Interpersonal relations in a discussion group. J. soc. Issues, 1948, 4, 61-65. (Bethel, 1947)

A comparison of two Basic Skill Training Groups with regard to the interplay of characteristic patterns of relationship and participation among members within the two groups. The two discussion groups showed consistent patterns of interpersonal relations under analysis of verbal behavior: they contrast in the stability of the interaction hierarchy, the distribution of participation, the type of contributions emphasized, and the direction of participation. The interrelations and the changes in these factors reveal that the status struggles of the members and the influence of the leader are important in the dynamics of group growth and development.

Bales, R. F. Interaction process analysis. New York: Addison-Wesley, 1950. (Bethel, 1947; preliminary development of interaction categories)

A 12-category framework for coding and analyzing participation of members in small groups sized from two to 20. The categories for this "interaction process analysis" were developed in 1946 during observations of a diagnostic council at the Department of Social Relations at Harvard, revised and used again on the Basic Skill Training Groups at Bethel in 1947, revised again and used in sessions of group therapy. The methodology is described in detail and a framework of theory is integrated into the discussion.

Barron, Margaret E., & Krulee, G. K. Case study of a basic skill training group. J. soc. Issues, 1948, 4, 10-30. (Bethel, 1947)

Presents a picture of a Basic Skill Training Group as it appeared to trained observers. Use was made of anecdotal observers. Conclusion was that the Basic Skill Training Group was a valuable one for the delegates, who appeared to gain significant insights into their own behavior, to acquire important new skills for understanding groups, and to develop greater ability to help groups work more productively, more effectively, and more independently. This study did not attempt follow-up on retention of changes made at the laboratory after leaving the training environment.

Benne, K. D., & Sheats, P. Functional roles of group members. J. soc. Issues, 1948, 4, 41-49. (Bethel, 1947)

A discussion of the need to identify, analyze, and develop skills of leader and member roles, seen as correlative aspects of overall group growth and production. Includes a description of functional member roles and the need for role flexibility. Member roles are classified into 12 "group task roles"; seven "group-building and maintenance roles"; and eight "individual roles." A discussion is given of the utility of such a categorization in research and in the development of group member training.

Bennis, W. G., & Peabody, D. The conceptualization of two personality dimensions and sociometric choice. Boston: Human Relations Center, Boston Univer., 1959. Unpublished typewritten manuscript, 20 pp. (Bethel, 1958)

This paper explores the relationship between two personality dimensions and group structure. Theoretical considerations led to an hypothesis that member orientation toward authority and intimacy (conceptualized as dependency and personalness) contributes toward subgroup formation. This hypothesis was substantiated. Evidence was also found that the two personality orientations are not linear dimensions but rather should be so conceptualized as to permit a combination of the two tendencies involved.

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* Reprinted from a publication of the same title, National Training Laboratories, Washington, D. C., 1960.

Ben-Zeev, S.; Gradolph, Ida Heintz; Gradolph, P.; Hill, W. F.; Stock, Dorothy; and Thelen, H. A. Methods for studying work and emotionality in group operation. Chicago: Human Dynamics Laboratory, The Univer. of Chicago, 1954. 208 pp. (Bethel, 1951)

A monograph describing methods for measuring group-relevant aspects of personality and a system of recording, analyzing, unitizing, and interpreting sequences of group interaction. Methods include a self-perceptual Q-sort, a Reactions to Group Situations Test (RGST), a sequential unitizing procedure, and a work emotionality field graph. The development, field use, and interpretation of the instruments are discussed in detail. The methods were developed by a research team working with Thelen at the Human Dynamics Laboratory at The University of Chicago, under a grant from the Group Psychology Branch of the Office of Naval Research.

Ben-Zeev, S. Sociometric choice and patterns of member participation. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 9, pp. 84-91. (Bethel, 1951)

General purpose was to determine whether or not members are likely to participate at the same time with those whom they like and fail to participate with those whom they dislike. Information was obtained about members' likes and dislikes of one another and then samples of the sequence of speakers were noted by observers for periods of 30 to 120 minutes. It was found that members who participated with those they liked showed a tendency on a projective test to express warmth and friendliness and to inhibit expressions of hostility and anger. The second group, who did not participate with those they liked, were found to have a tendency to express hostility and anger and to inhibit the expression of warmth and friendliness.

Ben-Zeev, S. Comparison of diagnosed behavioral tendencies with actual behavior. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 4, pp. 26-34. (Bethel, 1951)

A study devised to relate, for each of 16 members of a Bethel training group, valency as derived from a score summary of the RGST and behavior as expressed during 13 meetings of the group. A "significant but low" relationship seemed to exist between these variables. The relationship between valency pattern and behavior is greater for some persons than for others. The data can be interpreted to indicate that work was least suppressed and emotionality most suppressed in this kind of group. There was a greater correspondence between expression of work on the RGST and the expression of work in the group situation than between similar expressions of the emotional modalities. Affective situations do, however, appear to elicit participation in ways consistent with participation in the RGST, particularly with respect to fight and to pairing.

Bradford, L. P., et al. Research contributes to training. In National Training Laboratory in Group Development, Explorations in Human Relations Training. Washington, D. C.: National Education Association, 1953. Pp. 63-78. (Research summary, several laboratories)

This publication contains a chapter summarizing and integrating the research studies performed at the National Training Laboratory in Group Development between 1947 and 1953. Summaries include research on the training processes, basic group processes, the dynamics of interpersonal perception, the processes of interaction and formation of group structure, and phases of group development. These categories represent emphases in research during the formative years of NTL. Research at Bethel is seen as a springboard to further research by Bethel teams in their university settings, as influencing sensitivity training, and as effecting the culture of the training milieu.

Burke, R. L., & Bennis, W. G. Changes in perception of self and others during human relations training. Boston: Human Relations Center, Boston Univer., 1959. Unpublished dittoed manuscript, 29 pp. (Bethel, 1958)

The Group Semantic Differential Test was constructed to measure perceptual changes occurring to members of human relations training groups, from the beginning to the end of such membership. The test was administered to the population of the 1958 Bethel Summer Laboratory in Human Relations Training. Changes were predicted in the self-concept discrepancy (the relationship between perceived actual self and perceived ideal self) and in the perception congruity of individuals (the discrepancy between self-percept and ratings by other members of the individual, and the variance in the ratings by others of the individual). In addition, factor analytical results indicated the orthogonal dimensions by which group members were rated. Analyses were carried out in terms of global scores and/or factor scores for particular hypotheses.

Deutsch, M.; Pepitone, A.; & Zander, A. F. Leadership in the small group. J. soc. Issues, 1948, 4, 31-40. (Bethel, 1947)

An intensive study of the basic personality structure, values and ideologies and functioning in a small group, of a leader. It was concluded that the subject's leadership behavior resulted from the interplay of a great multitude of personality and environmental factors. The needs and values of the individual personality of the leader are crucial in the determination of behavior. Also important are the individual's perceptions of his immediate group environment and the total workshop environment. As indicated, personality and the social environment are highly interdependent.

Foster, Barbara R. Some interrelationships between religious values, leadership concepts, and perception of group process of professional church workers. Unpublished doctoral dissertation, Univer. of Michigan, 1958. 123 pp. (Green Lake, 1957)

The aims of this study included an effort: (1) to determine whether the cognitive content and structure of professional values are related to the cognitive content and structure regarding leadership; and (2) to determine whether these professional values influence the way group process is perceived. The original theory that an individual's professional value system would affect his concepts of group leadership was substantiated for this group of professional workers. Results also suggest the hypothesis that general orientation of values may have some relationship to another cognitive structure. The individual does not consciously use his religious belief system when the subject is other than religion--possibly indicating more objectivity when the subject matter is not seen as closely related to his professional value system.

Gage, N. L., & Exline, R. V. Social perception and effectiveness in discussion groups. Human Relat., 1953, 6, 381-396. (Bethel, 1950)

A pilot study on the accuracy of interpersonal perception as related to personal effectiveness as a member of the discussion group. Four training groups of about 16 members each were studied. There was no clear-cut confirmation of their hypothesis in all the groups they studied. The investigators point out some of the differences in group atmosphere and group functioning that might cause such differences. They also discovered in another analysis that those members whose opinions were most like the group average were judged to have the highest sensitivity to the feelings of fellow members.

Glidewell, J. C. Changes in approaches to work problem analysis during management training. Washington, D. C.: Second American National Red Cross School for Management Development, 1956. Unpublished mimeographed manuscript. 22 pp. (Red Cross, 1956)

A study based on the assumption that among the training objectives were: (1) awareness of the multiple-causation of organizational problems; (2) awareness of one's own involvement in the multiple-causation of organizational problems; and (3) awareness of problems as disorders of structure and function rather than deficiencies of morality or competence as

defined by the individual's own values. Findings are: (1) After training, half of the participants took a functional view of organizational problems; whereas before training, only one-third took such a view. (2) In general, the findings show an increase in self-involvement in roughly 50 per cent of the participants, when both positive and negative evaluations are considered. (3) Sixty per cent of the responding participants showed constructive changes toward multi-causation, realistic self-involvement, and functional problem definition in terms of skill and awareness in interpersonal relations.

Gordon, T. What is gained by group participation? Educational Leadership, 1950, 7, 220-226. (Bethel, 1949)

An intensive interview study of the laboratory learning of one training group of 16 members. The report indicates the complexity and interrelatedness of the various aspects of the learning process in this field of human relations training. Data indicate that one of the important elements in the process of learning is the development of new insights concerning the self and concerning personal functioning in the social situation. Gordon reports that changes in acceptance and understanding of self were accompanied by increases in tolerance for interpersonal differences.

Grace, Gloria L., & Grace, H. A. The relationship between verbal and behavioral measures of value. J. educat. Res., 1952, 46, 123-131. (Bethel, 1948)

A pilot study on type and degree of consistency between verbal statements of values and the behavior of members in all six of the training groups. Both measures of verbal and behavior values had high coefficients of reliability, but there was little evidence that others see people as acting in terms of what they report are their major values. Whether this inconsistency is between values and behavior or between behavior and the way behavior is perceived by others is not clarified by this pilot study.

Hill, W. F. The influence of subgroups on participation in human relations training groups. Unpublished doctoral dissertation, The Univer. of Chicago, 1955. 103 pp. (Bethel, 1951)

An attempt to demonstrate that group behavior can be seen as a product of the interaction among a limited number of subtypes. Hill used the concept of "valency" and the basic emotional categories of fight, flight, pairing, and dependency, but drew his conclusions about valency from self-perceptual data rather than from projective data. Subtypes were identified by grouping members according to similarities in self-percepts. Hill found relationships between the affective behavior of a subgroup and the group's need characteristics.

Hill, W. F. The need characteristics of subtypes and their relation to behavior. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 11, pp. 102-113. (Bethel, 1951)

During a 14-meeting, 18-member training group at Bethel five self-perceptual subtypes were identified and described in terms of their need characteristics. Behavioral information was collected relating the need characteristics to the kind of affect expressed in the group and the frequency of participation under different group-emotional conditions. "Considerable correspondence was found, particularly for those subtypes whose members could be considered most homogeneous in terms of need characteristics." The interaction of the various subtypes was used to describe characteristics of the total group experience. The behavioral information was consistent with this description.

Horowitz, M. W.; Lyons, J.; & Perlmutter, H. V. Induction of forces in discussion groups. Human Relat., 1951, 4, 57-76. (Bethel, 1949)

Explores the hypothesis that our positive or negative feelings about other members of a discussion group are likely to determine whether we accept or reject the ideas which are produced by these persons. Before the meeting of the training group the researchers secured a record of the positive or negative feelings each member of the group had toward each other member. At the end of the meeting each member of the group evaluated his acceptance or

rejection of certain contributions which had been made during the discussion by various members of the group. The results showed clearly that members who liked a particular group member tended to react positively to the contributions he made, while other members who disliked him reacted negatively to these same ideas. The data also indicated that a member's positive and negative feelings about other members tend to remain quite stable over a period of time.

Horwitz, M., & Cartwright, D. P. A projective method for the diagnosis of group properties. Human Relat., 1953, 6, 397-410. (Bethel, 1947)

The applicability of a modified TAT technique to the study of group properties was investigated in five training groups at Bethel. Group discussion of an ambiguous picture of a group was coded according to categories which correspond in part to theoretical constructs used in the study. Strength of group properties was measured by the frequency with which content could be coded under the various categories. "Preliminary validation procedures were reported based on (a) the agreement of properties measured by the test with independent measures, e.g., sociometrics, rating scales, (b) the agreement of relationships between measured variables and relationships predicted by theory. Significant or near-significant relations with validity criteria were found with respect to many of the test dimensions."

Jenkins, D. H. Feedback and group self-evaluation. J. soc. Issues, 1948, 4, 50-60. (Bethel, 1947)

Discussion of the need for a group to give attention to its mechanics of operation if it is to be an effective producing unit. Awareness of its direction and goal, its rate of progress, present location on its path to the goal, use of the members' potential ability and its ability to improve itself, are important factors which lead to increased efficiency. The use of the group-productivity observer as a feedback mechanism and the self-evaluation of its process by the group are techniques which have been worthwhile in improving the functioning of groups.

Kelley, H. H. First impressions in interpersonal relations. Unpublished doctoral dissertation, Massachusetts Institute of Technology, 1948. 97 pp. (Bethel, 1947)

A report on the stability and determinants of first impressions. Significant change seemed to take place in group perceptions of an individual staff member that can be interpreted as due to general opportunity to obtain new clues during further interaction, particularly in regard to the degree of self-assertiveness of the particular staff person. Certain changes of first impressions were interpreted as related to the differential need fulfillment that this staff member was able to supply in relation to different types of persons.

Lieberman, M. A. The relationship between the emotional cultures of groups and individual change. Unpublished doctoral dissertation, The Univer. of Chicago, 1958. 200 pp. (Bethel, 1954)

A doctoral thesis based upon data gathered at the Bethel laboratory in 1954. Two training groups were composed on the basis of scores on the RGST, administered to the participants by the Chicago research team. One group was composed of a full range of emotional modalities and one group was given a purposefully truncated range, with the "pairing" modality missing or minimal. The groups were found to differ in emotional cultures and showed differential changes in personality. Changes in personality were indicated by changes on several perceptual and behavioral indices. The kinds of behavior that group members could explore differed with the emotional culture. Changes accompanying the training seemed to differ with the culture and also with the "fit" of the culture to the emotional predispositions of the participant.

Lieberman, M. A. The relation of diagnosed behavioral tendencies to member-perceptions of self and of the group. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 5, pp. 35-49. (Bethel, 1954)

A study of the way members of two training groups describe their group and their own roles. In spite of the considerable diversity among members, there was a tendency for everyone to describe himself as warm and work-oriented and to deny that he was hostile or irrelevant. Independent information from personality tests and behavioral ratings showed that while some members sometimes could be described in these terms this kind of behavior was certainly not universal. These and other findings strongly suggest that there was a stereotyped impression among these persons as to what a "good group member" and a "good group" were, which influenced the way they saw themselves and the way they saw the group as a whole.

Lieberman, M. A. Sociometric choice related to affective approach. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 8, pp. 71-83. (Bethel, 1954)

A study of the relationship between personality and sociometric choice in two specially composed training groups. Personality was defined in terms of primary valencies for pairing, fight, flight, dependency, and counterdependency. Group A included about an equal number of members with primary valencies for fight, flight, pairing, dependency, and counter-dependency. Group B included no pairing members. Following each meeting sociometric information was obtained. It could then be determined which valency types chose other valency types. It was found that during the early stages of the group, the subtype in both training groups tended to make choices as a unit. The pattern of choices was rather complex, but Lieberman felt that threat to one's preferred mode of operating was an important influence on a subtype's choice pattern. As the groups progressed, choices became more diffuse and were influenced by other factors.

Lieberman, M. A. The influence of group composition on changes in affective approach. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 15, pp. 131-139. (Bethel, 1954)

This study attempted to determine the influence of group composition on changes in affective approach of individual members of training groups at Bethel. Groups were composed differentially on the basis of reactions to the RGST. The group composition seemed to influence the kinds of members who did and did not change. The data suggest that "members who do not change are those whose personal characteristics are so attuned to the prevailing group atmosphere that there is no pressure or opportunity to experiment with new behaviors." Composition also seems to influence change with respect to the affective areas in which change occurs. The data indicate that when a group deals primarily with a particular emotional issue this issue becomes the area in which the change occurs. It was not found possible to identify specific change patterns for specific affective approach types.

Lippitt, G. L. Effects of information about group desire for change on members of a group. Unpublished doctoral dissertation, American University, 1959. 165 pp. (Bethel, 1949)

A study of the effects of feedback on changes in individual behavior. Each person rated each other person in his training group on three points: frequency of participation, the degree to which he sought attention or avoided recognition, and the degree to which he welcomed or resisted the ideas of others. Each person also indicated the amount and direction of change he would like each member to make with respect to these three points. Experimental and control members of the group were determined on the basis of position of overall change desire as expressed by the group. Experimental members in two training groups were given information feedback interviews about how the group desired them to change on the above three categories midway through the life of the group. Results indicated that there

was close agreement between observers' and members' evaluations of individual behavior and that specific feedback procedures did facilitate significant change in individuals.

Lippitt, G. L. A study of the consultation process. J. soc. Issues, 1959, 15, 43-50. (Washington, D. C., 1952)

Data for an analysis of the dynamics of the consulting process were gathered by the NTL staff from a questionnaire administered to a staff of a school of nursing education in a state university. The dynamics of the consultant-client relationship are analyzed in terms of the goals of the consultation process, training in the consultation process, resistance to consultation, action research on the relationship, the general climate of the relationship, and sequential or developmental changes in the relationship. General implications and recommendations are outlined.

Livingston, D. G. The effects of varying group organization upon perception of power and benefit. Unpublished doctoral dissertation, Univer. of Kansas, 1951. 170 pp. (Bethel, 1950)

An experiment was performed to determine some of the effects upon social behavior, perceived power, and perceived benefit of four experimental forms of social organization in six-member discussion groups. The experimental situations were interdependence, dependence, independence, and competition. Some of the conclusions that seem warranted by the data: (a) Amount of perceived power or benefit can be predicted from an understanding of the extent to which there is a need for the actions of others for own need satisfaction and the extent to which others are perceived to be locomoting toward consistent goals; (b) Power is perceived when consistent goals are lacking and when there is a need for the action of others for own need satisfaction; (c) The maximum condition for individual benefit is that situation in which common goals are available but in which power is also present.

Mathis, A. G. Development and validation of a trainability index for laboratory training groups. Unpublished doctoral dissertation, The University of Chicago, 1955. 82 pp. (Bethel, 1952)

Mathis combined Bion's and Lewin's concepts of group operation to develop an index which might predict potential for learning and change among training group members. From Lewin's concepts he reasoned that internal conflict would stimulate an individual to search for solutions to problems arising through group interaction: that is, conflict would facilitate learning. From Bion's concepts he reasoned that valencies for pairing and fight would provide the individual with supportiveness and aggressiveness to enable him to move "toward" problem situations and interact "personally" with the problem. Valencies for dependency and flight were considered to inhibit learning, as would tendencies to become immobilized in stress. Ten persons (out of 50) with the highest scores of trainability index were compared with ten having the lowest scores. Mathis concludes that the trainability index can differentiate between persons likely and unlikely to profit from the laboratory.

Mathis, A. G. "Trainability" as a function of individual valency pattern. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 17, pp. 150-156. (Bethel, 1952)

This chapter is a discussion of the implications of the preceding Mathis study for the Bion-Chicago theory as outlined in the Stock-Thelen book. A successful trainability index for use in Bethel-type training situations was based upon the ratio of adient to abient indicators from the RGST. The index of trainability is the sum of fight, pairing, and conflict responses divided by the sum of flight, dependency, and immobilization responses. Implications for theory and for training are discussed. Applicants for laboratory training who are dependency-flight individuals, fall at the lower end of the trainability continuum, and make many bizarre responses on the RGST, are seen as unlikely to profit from laboratory training. Persons with such predispositions may, however, "contribute usefully to the training curriculum."

Miles, M. B.; Cohen, S. K.; & Whitam, F. L. Changes in performance test scores after human relations training. New York: Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, 1959. Mimeographed manuscript, 35 pp. (Bethel, 1958, and other laboratories)

This paper reports an attempt to develop a performance test of outcomes of human relations training. Data are presented on pre and post administrations of the Gibb-Miles Group Behavior Task to 154 participants at five different training laboratories. The test was scored on four quantitative variables: sensitivity to feelings, sensitivity to behaviors, sensitivity to group decisions, and diagnostic ability. Test results indicate that some changes are occurring during the laboratory training periods "that are roughly congruent with desired laboratory outcomes." The authors advise caution in the interpretation of the results due to the stage of development of the test and the contingent uncertainty in its reliability and validity.

Monk, Mary A. The effect of acquaintance and visibility on group behavior. Ann Arbor: Research Center for Group Dynamics, The University of Michigan, 1950. Unpublished dittoed manuscript, 13 pp. (Bethel, 1950)

This paper reports an exploratory study of data taken upon 164 participants in the Bethel laboratory in an attempt to determine relationships between acceptance by and of a group of which an individual is a member and the number of acquaintances the individual has. Chi square analyses are made of a number of relationships between measures, resulting in some statistically significant differences. Trends in the data suggest that persons with high acquaintance scores will be rejected by and will reject their groups and that those with high visibility scores will be more accepting and accepted. Some interpretations of the results are suggested.

Norfleet, Roberta. Interpersonal relations and group productivity. J. soc. Issues, 1948, 4, 66-69. (Bethel, 1947)

Maximum productivity could be achieved, according to the hypothesis, only if the members of the group learned to respond to one another not in terms of friendliness and personal liking but rather in terms of the ability of the members to contribute to the objectives of the group. "The laboratory goals of training members to play a productive role in the functioning of the group were achieved. Though we have no evidence to show which parts of the total pattern of training were responsible for this achievement, it seems probable that the feedback and evaluation sessions were of major importance." As members accepted responsibility for the operation and for the productivity of their groups, their own behavior in discussion was guided more and more by their perceptions of the productivity of others and less and less by their personal feelings and egocentric needs.

Rosenberg, M. J. A preliminary report on the relation of personality factors to sociometric position in Bethel Groups V and VI. Ann Arbor: Research Center for Group Dynamics, The University of Michigan, 1951. Unpublished dittoed manuscript. 7 pp. (Bethel, 1950)

A study using two paper-and-pencil tests of personality (Guilford-Zimmerman and Runner-Seaver) for the purpose of relating the data on these tests to sociometric choices of personal liking and judgments of who were highly productive and unproductive group members. Rosenberg found that the rejected members tended to be more compulsive, competitive, and energetic, and less friendly than the accepted members. They also showed less capacity for personal relations. The author used the term "anal" to define this combination of characteristics. From his findings, he formulated the general hypothesis that members displaying this combination of traits would be likely to be rejected by others. Upon testing of this hypothesis on a second group this prediction was upheld.

Rosenberg, Pearl Pollock. An experimental analysis of psychodrama. Unpublished doctoral dissertation, Harvard Univer., 1952. 41 pp. (Bethel, 1950)

An experiment with three standardized role-playing situations to test several hypotheses concerning the amount and type of training influence on role-playing situations.

Rosenberg predicted different effects of the role-playing upon three groups: (a) the actual role-takers, (b) other members of the training group who were asked to identify with a particular role-taker but did not act the role themselves, and (c) other members of the group who were asked to sit back and merely observe what was going on. The 50 hypotheses which were derived predicted specific differences in diagnostic perception, evaluative judgment, emotional involvement, and behavioral change. All of the major hypotheses were confirmed.

Smith, A. J.; Jaffe, J.; & Livingston, D. G. Consonance of interpersonal perception and individual effectiveness. Human Relat., 1955, 8, 385-397. (Bethel, 1950)

A study of the relationship between "consonance" and "effectiveness" in a 19-member training group. Consonance is a measure of the extent to which a member is "in tune" with the way the group as a whole looks at its members. The authors' general assumption was that members with high consonance would be seen as most effective by outside observers and most valuable and powerful by group members. In addition, it was hypothesized that a member will believe he can contribute most to, and be most benefited by, those persons whose perceptions are most consonant with his own. The results showed that the most consonant members were seen as most effective by outside observers and most powerful by members but were not necessarily seen as most valuable. A small but significant relationship was also found between consonance and feelings of mutual benefit.

Stock, Dorothy. A summary of research on training groups. In L. P. Bradford and J. R. Gibb (Eds.), Theory of T-Group Training. Washington, D. C.: National Education Association, 1958. Pp. 1-42. Unpublished mimeographed manuscript. (Research summary, several laboratories)

An integrated summary of published and unpublished studies performed between 1947 and 1957 in the T-Group setting. Some of the studies were performed at NTL laboratories and some performed by NTL associates in university and other workshop settings. Studies are classified and analyzed under three headings: (1) studies concerned with the character of the training group, particularly with its composition, development, and perceptual structure; (2) studies concerned with personality characteristics of members and their influence on individual behavior and perception; and (3) studies concerned with individual learning and change. A 41-item bibliography is appended.

Stock, Dorothy. Interrelations among changes in the three components of valency: A case study. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 19, pp. 171-184. (Bethel, 1954)

An intensive case study of an individual who participated in a 1954 Bethel training group. Data come from scores on a RGST given two months prior to the training and one given six months afterward. The analysis is made in terms of changes in his affective approach, culture preference, underlying concerns, and the relation of his valency pattern to role preference and sociometric choices. The individual undergoes some changes that are presumably relevant to training aims: a reduction in need for structure, a decrease in expression of dependency, a reduction in the degree to which he is threatened by fight, and a shift toward less rejection of persons who express positive affect freely. The analysis of the test results are consistent with shifts in perception on the part of the individual of his own role, of other members, and of the total group.

Stock, Dorothy, & Ben-Zeev, S. Changes in work and emotionality during group growth. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 21, pp. 192-206. (Bethel, 1951)

A study of the development of a training group which met for 14 sessions. A procedure for rating behavior was used, based on the theories of Bion. The authors found that while the amount of emotionality expressed remained constant, the average work level tended to increase during the course of the meetings. The development of this group could be divided into four

phases, and the important changes which occurred had to do with the relationship between the expression of work and the expression of emotionality.

Stock, Dorothy, and Hill, W. F. Intersubgroup dynamics as a factor in group growth. In Dorothy Stock and H. A. Thelen (Eds.), Emotional dynamics and group culture. Washington, D. C.: National Training Laboratories, 1958. Chapter 22, pp. 207-221. (Bethel, 1951)

The course of group development was related to the subgroup structure of two training groups. A behavioral rating procedure which emphasized the relation between work and emotionality was used to identify the course of group development. Subgroups within each group were defined by identifying the way each person perceived his own participation as a member and then grouping the members who had similar self-percepts. It was found that the group composed of subgroups which displayed considerable diversity within a common way of perceiving member-participation progressed toward an integration of work and emotionality. The second group failed to show this kind of progression, remaining in an exploratory phase and alternating between emotionally labile and emotionally constricted behavior. The members of the second group displayed no common way of perceiving member-participation but instead fell into a number of mutually opposed subgroups.

Swanson, G. E. Some effects of member-object relationships on small groups. Human Relat., 1951, 4, 355-380. (Bethel, 1949)

A study of the relation between personality and group interaction using the Blacky projective test and interaction records of the group discussions made by two research observers. Predictions were particularly good on total volume of social activity, the receiving of positive sociometric choices, being perceived as an influential person, and drive for leadership. One of the interesting discoveries was that the differences in the group atmosphere that developed in the two groups seemed to result in different opportunities for expression and different standards of inhibition in the two groups. This made for different problems of prediction from personality to behavior in the two groups, unless one took into consideration the differences in the group social climate.

Thelen, H. A., & Dickerman, W. Stereotypes and the growth of groups. Educational Leadership, 1949, 6, 309-316. (Bethel, 1948)

Clinical analysis of recordings from 15 two-hour meetings of a training group. "In the first phase various members of the group quickly attempt to establish their customary places in a leadership hierarchy....Next comes a period of frustration and conflict brought about by the leader's steadfast rejection of the concept of pecking order and of the authoritarian atmosphere in which the concept of pecking order is rooted. The third phase sees the development of cohesiveness among the members of the group, accompanied by a certain amount of complacency and smugness....This phase is unstable because it is unrealistic, and gives way to a fourth phase. In the fourth phase the members retain the group-centeredness and sensitivities which characterize the third phase but they develop also a sense of purpose and urgency which makes the group potentially an effective social instrument for action."

Watson, Jeanne. Preliminary report on Blacky research, Bethel, 1950. Ann Arbor: Research Center for Group Dynamics, The University of Michigan, 1952. Unpublished dittoed manuscript, 20 pp. (Bethel, 1950)

A preliminary report of a statistical and category analysis of the Blacky scores of 100 participants in the 1950 Bethel session. Persons are classified into 14 categories such as oral hostility alone; oral hostility plus narcissism; anal hostility, narcissism, and anxiety; oral dependent; and anal compulsive. The number of people in a given category varies from two to 12, with a mode of eight. Tables are presented of tests of the strength of the findings in 25 criterion categories, which include such measures as self-ratings on change, conforming intentions, average post-meeting satisfaction, willingness for self-evaluation, and initial leisure-time choice. A critical discussion of the problems of predicting from Blacky test scores to social behavior is given, together with an analysis of the prediction data.

Watson, Jeanne. The application of psychoanalytic measures of personality to the study of social behavior. Paper read at American Psychol. Ass. meetings, September 1953. Unpublished mimeographed manuscript, 6 pp. (Bethel, 1950, 1952, 1953)

This paper presents a summary and analysis of three separate studies performed at the 1950, 1952, and 1953 sessions at Bethel. With the purpose of determining the utility of psychoanalytic theory in the study of individual behavior in group situations, personality test scores were compared with a variety of measures of social attitude and social behavior. It was possible to identify groups of people who had common personality characteristics, and expressed these in certain typical patterns of behavior. The process involved converting the original personality scores into second-order judgments of hostility, anxiety, and narcissism. It was then possible to predict behavior. For instance, it was found that people with direct, oral sadistic hostility were critical and aggressive and that people who had high anxiety scores are uncomfortable in a group situation, and particularly in an unstructured group situation.

Watson, Jeanne. Some social psychological correlates of personality: A study of the usefulness of psychoanalytic theory in predicting to social behavior. Unpublished doctoral dissertation, The University of Michigan, 1953. 238 pp. (Bethel, 1950, 1954)

This was a major study following up work begun at the 1949 Bethel laboratory by the University of Michigan Team led by Swanson. The project actually continued until 1954 and will be reported in further material to be published. Purpose was to study relationship between basic personality organization and social behavior. Watson developed a typology to characterize individuals along psychoanalytic theory. In general, it was found possible to relate personality organization, formulated at this "deep" level, to behavior in a training group, if certain "bridging" inferences were made about the general implications of these orientations for behavior.

Watson, Jeanne. Personality determinants of behavior in small face-to-face groups. Paper read at 36th Annual Institute of the Society for Social Research of The University of Chicago, May 1959. Unpublished typewritten manuscript, 11 pp. (Bethel, 1949, 1950)

An integration of a series of studies performed by Lippitt and Watson at The University of Michigan or at the Bethel laboratories in 1949 and 1950. Throughout the studies an attempt is made to build from personality theory to theories about group behavior. During the series of studies personality variables were measured either by the Blacky Pictures Test or by the Krout Personal Preference Scale. Field studies were performed upon adults in the Bethel situations and laboratory experiments upon college students at The University of Michigan. The studies are interpreted as a successful use of psychoanalytic theory in predicting group behavior, particularly in providing correlations between specific measures of personality and specific measures of behavior. Next steps in the research are to be directed toward a further study of the dynamics of these relationships.

Wedel, Cynthia C. A study of measurement in group dynamics laboratories. Unpublished doctoral dissertation, The George Washington University, 1957. 149 pp. (Green Lake, 1957, and others)

A doctoral dissertation based upon data from 18 laboratories, one of which was the NTL Green Lake laboratory in 1957 and 17 of which were conducted by the Episcopal church. Several tests were administered to participants in the laboratories before, during, and/or after training. Responses to an opinion blank indicated that changes occurred in opinions about groups. Responses to a sociometric test of social perception indicate a statistically insignificant change in the predicted direction of increased insight. A sociometric instrument indicated that changes occurred during training in areas of concern about group leadership. Results from reaction questionnaires returned by 333 of 477 participants indicate that a significant number of participants in this kind of training see themselves as having changed in many specific ways and that this change is attributed to the training.

Whyte, W. F. Leadership and group participation. Ithaca, New York: New York State School of Industrial and Labor Relations, Cornell University, Bulletin No. 24, 1953. 49 pp. (Bethel, 1950)

A study of social interaction in the training group using a team of observers who kept running "field notes" on the processes of leadership and membership functions in six afternoon training groups. The interpretive summary of findings of this study focuses on the problems of decision making when the role of the leader is ambiguous and the problems of a change of official leadership role from one of active leadership to one of "resource person," with other members taking the more active leadership role. Whyte helps to clarify an important distinction between frustration which is destructive because it is not task-oriented and frustration which is likely to be constructive because it is attempting to deal with problems of group progress and personal learning.

## B. Research Since 1960 -

### 1. A Bibliography of Research on Human Relations Training

by

Eric S. Knowles

The following is a list of published and unpublished research on human relations training. Those references prefaced with an asterisk (*) are abstracted in Part 2.*


Altrocchi, J., & Lakin, M. Group psychotherapy, group sensitivity training, and the necessary group conditions for therapeutic personality change. Paper read at Third International Congress Group Psychotherapy, Milano-Stressa, Italy, July 1963.

Ardoino, J. Le groupe de diagnostic, instrument de formation. Institut d'Administration des Entreprises, Université de Bordeaux, 1962.

*Argyris, C. Explorations in interpersonal competence -- I. J. appl. Behav. Sci., 1965, 1 (1), 58-83.

*Argyris, C. Explorations in interpersonal competence -- II. J. appl. Behav. Sci., 1965, 1 (3), 255-269.

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Blake, R. R., & Mouton, Jane S. Clinical treatment vs. laboratory training techniques as approaches to the induction of change. Symposium on behavior from the viewpoints of social learning, small groups, and cultural-sociological concepts. Austin: Univer. of Texas, 1960.

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## 2. An Annotated Bibliography of 52 Studies

by

Eric S. Knowles

Argyris, C. Explorations in interpersonal competence--I. J. appl. Behav. Sci., 1965, 1 (1), 58-83.

This paper presents a procedure for measuring interpersonal competence of a person in a helping relationship. Under the prediction that human competence tends to increase when (1) one's awareness of relevant factors increases, (2) the problems are solved in such a way that they remain solved, and (3) there is a minimal deterioration of the problem-solving process, the author developed a set of categories to observe these phenomena. Behavior categories are organized on an individual, interpersonal, and cultural norm level, and within each level behaviors are scaled and weighted with differential weights given to ideational or feeling components of the behavior. The primary plus categories on the individual and interpersonal levels are owning up to, openness, and risk taking. On the norms level they are individuality, concern, and trust. The use of the categories and the scoring of behaviors are explained. Preliminary validation studies show that both individuals and groups in human relations training can be scaled according to interpersonal competence and that this score correlates significantly with competence as perceived by members, staff, and observers. Also, the patterning of individual scores can be used to predict individual growth in interpersonal competence.

Argyris, C. Explorations in interpersonal competence--II. J. appl. Behav. Sci., 1965, 1 (3), 255-269.

The categories developed in part I are used as a basis to evaluate the relative effectiveness of lecture vs. laboratory education in the subject areas of interpersonal relations and group dynamics. Two six-week, living-in, university programs for senior executives were used, one with a lecture approach, one with a laboratory (including T-Groups) approach. For each program, tapes of case discussions from the first, third, and fifth weeks were analyzed, using the categories developed in part I for interpersonal competence.

The study suggests that processes are generated in the lecture approach similar to those which create difficulties in back-home groups but without providing opportunities to explore these processes in a way that might confront participants with inconsistencies between rational analysis and actual behavior. The data suggest that a laboratory approach, with its emphasis upon such exploration and confrontation, seems to produce more behavioral change. (Expanded author abstract)

Bass, B. M. Reactions to "12 Angry Men" as a measure of sensitivity training. J. appl. Psychol., 1962, 46, 120-124.

In a series of management training laboratories, a sentence completion film reaction test was developed to detect sensitivity to interpersonal phenomena. The examination has a test-retest reliability of .71. Performance on the test is significantly increased as a consequence of a management training laboratory. The scores match opinions of peers and staff psychologists' appraisals. Sensitivity scores correlate significantly with influence in small group discussions, but not necessarily with job status in one's organization. Young engineers appear to earn particularly low scores. Sensitivity scores seem to bear little relation to whether the individual is self-, interaction-, or task-oriented in groups. (Author abstract)

Baumgartel, H. Report on research: Human relations laboratory, session I, Bethel, Maine, summer 1960. Unpublished manuscript. Washington, D.C.: National Training Laboratories, 1961.

Seventeen tables present uninterpreted data on how participants viewed their T Groups and E Groups, themselves, and other members in their groups at five different testing points throughout the laboratory. The E Groups were composed of people who preferred high, moderate, or low structure. One E Group with people of high and low structure-preference showed the greatest positive change, overall, from the beginning to the end of the laboratory. This paper reports data in search of an hypothesis.

Baumgartel, H., & Goldstein, J. W. Need and value shifts in college training groups. J. appl. Behav. Sci., 1967, 3 (1), 87-101.

An internal criterion of change was used to evaluate the effects of a college human relations training course on interpersonal need orientation (measured by Schutz's FIRO-B) and individual values (measured by Allport, Vernon, & Lindzey's Study of Values). The general hypothesis under study was that in an interacting group, members would become more like the highly valued members of the group over the course of time. The various subscores on the FIRO-B and the Study of Values instrument, administered at the beginning of the semester course, were correlated with the sociometric rankings of "most preferred working partner," obtained at the end of the course. There were only two significant correlations with sociometric position: highly valued members had higher expressed control scores on the FIRO-B and lower religious value scores on the Study of Values. The specific hypothesis that members would change in accordance with the highly valued members, namely, toward higher expressed control and lower religious value, was tested with re-administrations of the FIRO-B and the Study of Values at the end of the semester. Only the reduction in religious value is supported by the data; there was no significant difference in the expressed control scores. However, two other FIRO-B scores did show significant changes: members increased in their wanted control scores and decreased in their wanted affection scores. Subanalysis of the data indicates that the high-valued females and the low-valued males contributed most of the change on these scores. The conclusion is drawn that sociometric choice has some relevance for (1) showing some of the dimensions on which change will occur, and (2) predicting which people will change more than others.

Bennis, W. G., & Peabody, D. The conceptualization of two personality orientations and sociometric choice. J. soc. Psychol., 1962, 57, 203-215.

This paper focuses on the relationship of two personality variables, dependence and personalness, the characteristic pattern related to interpersonal intimacy, on sociometric choice. The specific hypothesis is that in a fairly stable group people will tend to form subgroups, communication, and loyalties with like-oriented people and not with members who have a different orientation. The trainers of two 1956 NTL summer laboratories were asked to rate their T-Group members on the dimensions of dependency, the characteristic behavior related to a leader or to a structure of rules, and of personalness. In each T Group each member was asked to indicate those three members with whom he got along best and those three with whom he got along least well. The hypothesis was significantly supported in the case of counterdependents (people who rebel against structure) and in the case of overpersonals (people who have a high need to be intimate) and was near significance in the case of dependents (people who rely on structure). The authors conclude that there is a tendency for members to sociometrically choose people who are similar in their orientation to the group and to reject people who are opposite in their orientation.

Blake, R. R., Mouton, Jane S., & Fruchter, B. A factor analysis of training group behavior. J. soc. Psychol., 1962, 58, 121-130.

Eleven scales used to describe a training group were subjected to a factor analysis to determine the underlying factors which could be used to describe training groups. One hundred sixty participants from five laboratories completed the rating scales 13 different

times, from which the intercorrelation matrix was computed. Three factors were identified: the major factor was labeled "cohesion," constituent items expressing identification with group interests; the second factor, "group accomplishment," represented evidence of striving to be effective; the third factor, "group development feedback," was concerned with how individuals and the group are functioning. The appearance of these three orthagonal factors has implications for the theory and description of T Groups and T-Group behavior. For instance, contradictory results concerning a direct relationship between cohesion and group productivity can be interpreted with the finding that cohesion and accomplishment are independent factors.

Bowers, N. D., & Soar, R. S. Evaluation of laboratory human relations training for classroom teachers. Studies of human relations in the teaching-learning process: V. final report. U.S. Office of Education Contract No. 8143. Columbia: Univer. of South Carolina, 1961.

The authors conducted a comprehensive, well-controlled study of behavioral and attitudinal changes by teachers following three weeks of half-day training sessions, composed of theory input, skill practice, and T-Group training. Various measures assessing (1) teacher biographical data, (2) teacher personality and attitudes, (3) teacher and pupil classroom behavior, and (4) pupil social skills, were administered to 54 teachers in the spring of 1959 and again in the spring of 1960, after 25 of the teachers attended the summer laboratory. Analysis of the pretraining data indicates that well-adjusted teachers utilized more group procedures and fewer written verbal procedures and that their pupils achieved greater social skills than the less well-adjusted teachers. Posttraining results indicate that trained teachers made significant changes in their attitudes toward pupils and democratic leadership, but that the control group also showed a change so that the difference between the two groups was not significant. Complex analysis of the data shows that some of the variables interacted to produce changes in attitudes and behavior. For instance, teachers who were well adjusted and who emphasized verbal presentation prior to training were likely to change this emphasis toward more student participation after training; whereas those teachers who were low in verbal emphasis or were high in verbal emphasis but with low adjustment did not change their verbal emphasis. In general those characteristics which predicted "good" teaching also predicted profit from training. The authors conclude that: "the same personal traits predict 'good' teaching, with or without training, but the training increased the degree of difference between greater and lesser skill. The effect of training was to help the teacher realize his potential -- to maximize the translation of his potentiality into actuality."

Boyd, J. B., & Elliss, J. D. Findings of research into senior management seminars. Internal document, Personnel Research Department, The Hydro-Electric Power Commission of Ontario, Toronto, 1962.

Two in-company programs--a two-week laboratory consisting of T Groups, lectures, and demonstrations, and a two-week course in administration built around case discussions and lectures--were compared with a control group six weeks and six months after the end of the programs. For each of the subjects, the supervisor, two peers, and two subordinates were asked whether or not they had noticed any change in the behavior of the participant. Seventy per cent of the observers reported changes for the laboratory group, 52 per cent reported changes for the administration course people, and 36 per cent reported changes for the control subjects. Observers also reported a wider variety of changes for the laboratory participants (average of 11 per subject) than for the administration course (average of four per subject). A scale assessing the degree to which a person assumes personal responsibility for his own work situation was also administered before and after the laboratory program. Both an increase and a decrease in personal responsibility are positively associated with on-the-job changes, which the authors interpret as the laboratory's sponsoring more realistic assessment of the individual's role in the work situation.

Buchanan, P. C. Evaluating the effectiveness of laboratory training in industry. Explorations in Human Relations Training and Research, Report No. 1, 1965. Washington, D.C.: National Training Laboratories, NEA.

This is a paper reviewing a number of evaluation studies, many unpublished, leading to the conclusions that (1) laboratory training is effective as a means of facilitating specific changes in individuals in the industrial setting; (2) it has been used effectively, sometimes; (3) behavioral scientists are actively engaged in subjecting their theories and methods to systematic analysis; and (4) some strategies are showing exciting payoff. The author provides a model for characterizing types of training laboratories along two dimensions. First, the type of training goals, self-insight or process understanding; and second, the strategy for using laboratories, to develop the participant as a person, to help the participant become more effective in his work, or to facilitate the development of an intact organization or unit.

Bunker, D. R. Individual applications of laboratory training. J. appl. Behav. Sci., 1965, 1 (2), 131-148.

Experimental subjects who participated in one of six human relations training laboratories conducted at Bethel, Maine, in the summers of 1960 and 1961, and matched control subjects were contacted a year after the laboratory and given an open-ended perceived change questionnaire to be filled out by the subject and seven of his job associates to assess what changes they saw the subject making in the way he worked with people. Responses were coded for the number and kinds of changes mentioned. The total number of changes mentioned and the verified changes (in which two or more associates described the same change) revealed that two-thirds of the experimental subjects and one-third of the control subjects made significant on-the-job changes. The verified change score correlated .32 with a trainer rating of change taken at the laboratory. Analysis of the content of the changes mentioned identified three clusters of changes affected by laboratory training: (1) increased openness, receptivity, and tolerance of differences; (2) increased operational skill in interpersonal relations; and (3) improved understanding and diagnostic awareness of self, others, and interactive processes in groups. A fourth cluster representing more effective initiation and assertiveness did not differentiate between experimentals and controls.

Bunker, D. R., & Knowles, E. S. Comparison of behavioral changes resulting from human relations laboratories of different lengths. J. appl. Behav. Sci., in press.

Participants in human relations training laboratories conducted in Bethel, Maine, for three weeks' (n = 53) or for two weeks' (n = 102) duration were compared against one another and against a matched control group (n = 72) for enduring behavioral changes as assessed by questionnaires sent to each participant and seven of his co-workers one year after the laboratory. Both the total number of changes mentioned about a participant and the verified change score, in which two or more people mention the same change about a subject, reveal that the participants in the three-week laboratory changed more than the participants in the two-week laboratory ($p < .05$), and that both laboratory-trained groups changed more than the control group ($p < .001$). A content category analysis suggests that the three-week laboratory participants made more overt, pro-active changes as opposed to the more passive, attitudinal changes made by the two-week sample. Analysis of changes by broad occupational groupings shows differences in response to training which interact with the samples studied. The training designs of the three-week and two-week laboratories are discussed and shown to confound the duration variable. The greater relative emphasis on back-home application of laboratory training in the three-week program is suggested to be a major contributor to the qualitative differences in changes; duration of the laboratory is suggested to be the major contributor to the quantitative difference in changes.

Burke, R. L., & Bennis, W. G. Changes in perception of self and others during human relations training. Human Relat., 1961, 14, 165-182.

From a theory postulating that laboratory training increases the accuracy of a person's self-perception and perception of others, the authors derive five hypotheses about changes

in ratings of actual self, ideal self, and the self as rated by others. A Group Semantic Differential (GSD) instrument to measure perceptions is presented with a factor analysis of the items. Eighty-four persons in six T Groups, the population of a 1958 NTL summer laboratory, were used as subjects in this study. The authors find that the perceived actual self and the perceived ideal self are much closer to each other at the end of training than at the beginning. This congruence is contributed to more by changes in the perceived actual self than by changes in the perceived ideal self. A member's self-perception and the perception of him by others in his T Group are more similar at the end of the laboratory than at the beginning. Over time, members of a T Group tend to agree more with one another about the amount of participation and activity of individuals in the group, but no such congruence of perception occurs for either the friendliness or dominance of individuals. Members, in general, change much more in the ways in which they perceive other individuals in the group than these individuals change in their perception of actual self. The authors conclude that the laboratory is a powerful medium of change and can be beneficial in reorienting perceptions of members.

Carson, R. C., & Lakin, M. Some effects of group sensitivity experience. Paper read at Southeastern Psychol. Ass., Miami Beach, Florida, April 1963.

This study attempts to replicate and improve upon the Burke and Bennis study (abstracted above) concerning changes in self-concept and perception of others following sensitivity training. The authors studied two T Groups of seven and eight members respectively who met together for two weeks in one-and-one-half-hour daily sessions. Members filled out a 16-scale rating instrument for themselves and every other member of their group two weeks before and two weeks after training. In addition, one group was asked to complete the ratings six weeks prior to training in order to obtain some control information. Six hypotheses were generated concerning changes in self-perception and the relation between self-perception and others' perception following training. Data from one of the T Groups support most of the hypotheses in much the same way as Burke and Bennis found. However, the second T Group (the one, incidentally, on which control measures had been taken) showed very little difference following training.

Clark, J. V., & Culbert, S. A. Mutually therapeutic perception and self-awareness in a T Group. J. appl. Behav. Sci., 1965, 1 (2), 180-194.

The authors present a theory that T-Group members become more self-aware as a result of participating in mutually therapeutic relationships, where one person congruently expresses feelings, allowing the other member also to express feelings. In a test of this theory, the authors studied nine members and a trainer in a T Group. Samples of the subjects' speech from near the beginning and near the end of the T-Group experience were rated by two judges on the Problem Expression Scale (PES) measuring self-awareness. Four of the ten subjects showed significantly positive changes, five showed nonsignificant changes, and one showed a significantly negative change. The major hypothesis was that the subjects showing the most increase in self-awareness are those who enter into more mutually therapeutic relationships. The Barrett-Lennard Relationship Inventory was used to assess a person's perception of a therapeutic relationship, specifically: (1) the level of positive regard, (2) the degree of empathic understanding, (3) the congruence of experiencing the other person, and (4) the unconditionality of regard. The hypothesis was supported by significant X Ss relating positive PES changes to the number of dyadic relationships an S had in which both members perceived each other as high in the therapeutic qualities.

Culbert, S. A. Trainer self-disclosure and member growth in two T Groups. J. appl. Behav. Sci., in press.

This study compared the effects that "more" or "less" self-disclosing trainer behavior had upon the upper-division and graduate student members of two T Groups. Part I of the data analysis substantiated that the experimental manipulation took place as intended. Part II showed that while an equivalent number of 2-person "perceived therapeutic relationships" were formed in each group, the subjects in the group with the less self-disclosing trainers more often entered them with their trainers and dyad partners and the subjects

with the more self-disclosing trainers more often with other members. Part III showed that although both groups eventually attained the same level of self-awareness, the more self-disclosing group did so earlier. A revised prescription for trainer behavior was advanced, suggesting that the trainer might optimally begin his participation with high rates of self-disclosure and become more selective with time. (Author abstract)

Deep, S., Bass, B. M., & Vaughan, J. A. Some effects on business gaming of previous quasi-T-Group affiliations. Technical Report 12, O.N.R., Management Research Center, Univer. of Pittsburgh, 1966.

Ninety-three graduate business students were assigned to nine "companies" to play the Carnegie Tech Management Game requiring competing companies. The game was the major portion of a 15-week course in integrated decision making. Men were assigned to "companies" according to whether they had been in the same or different leaderless T Groups in a course 15 weeks earlier.

"Companies" with multiple T-Group membership performed significantly more effectively in the game, as measured by greater profits and gains in stock prices and reduced losses from poor planning and forecasting error. While "companies" made up of members from the same T Group reported less internal conflict, more ease of contact, and more openness, they performed very poorly on the objective measures (losing $5.37 million rather than showing a profit as did the multiple T-Group companies). The authors report that the same T-Group companies were not able to set up control and follow-up procedures and became overconfident of one another's dependability.

Ford, J. D., Jr. Computer analysis of text for the measurement of social perception during human relations training. Document No. SP-1373/001/00, System Development Corporation, Santa Monica, California, 1964.

This paper reports a preliminary study of the application of computer content analysis of text to the assessment of changes in social perception during a University of California semester-long sensitivity training course. Data were collected in the form of post-meeting reports from a T Group which consisted of supervisors from business and industry. Analysis was accomplished using the General Inquirer Program. Results indicated wide dispersion of statements referring to "self," "group," and to content indicating emotions and thought processes. During training there were statistically significant increases in references to "self" and to emotions, and statistically significant decreases in references to thought processes and to evaluation. The results are discussed in terms of a broader concept of social cognitive learning. (Author abstract)

French, J. R. P., Jr., Sherwood, J. J., & Bradford, D. L. Change in self-identity in a management training conference. J. appl. Behav. Sci., 1966, 2 (2), 210-218.

This research attempts to demonstrate a relationship between the amount of feedback (communicated objective public identity - COPI) a person receives about his behavior and the amount of change that occurs in self-identity. Twenty participants in a two-week conference in human relations training for middle managers filled out a 19-item semantic differential assessing their perception of themselves (self-identity) at the beginning, at the end, and ten months after the laboratory. During the second week of the conference, participants received different amounts of feedback about a personally selected important behavior dimension. The results support the hypotheses that the greater the amount of feedback (COPI), the greater the change in self-identity, and that the lower a person's self-evaluation on a dimension, the greater the change in his self-identity along that dimension. Additional results suggest that most change in self-identity occurs during the second week of the conference, rather than the first, and that the self-identity continues to change after the end of the conference.

Gassner, S. M., Gold, J., & Snadowsky, A. M. Changes in the phenomenal field as a result of human relations training. J. Psychol., 1964, 58, 33-41.

This paper reports three evaluation studies of three-day human relations training programs conducted by the City College of New York. In particular, the studies look at changes in the phenomenal self (including ideal and actual self) and in the phenomenal field. Experiment one used a modified Bills's Index of Adjustment and Values to assess increases in similarity between self-perception perceptions. Both experimental (trained) and control subjects showed significant increases from pre- to post-measures, and the increases were not significantly different. Experiment 2 used the Burke and Bennis graphic-rating-scale series, pre and post, with 45 trainees and 27 control subjects. There was no significant increase in the similarity between actual-self and ideal-self for either experimentals or controls. But, both experimentals and controls increased significantly in the similarity between actual-self and average-other ratings. This experiment has import for the Burke and Bennis study, which did not use a control group. Experiment three consisted of pre- and post-training administrations of a "Democratic leadership attitude scale" with 94 experimental and 28 control subjects. Both groups were initially equal, but the post-test reveals that the experimental subjects had significantly increased their understanding of democratic leadership concepts whereas the control subjects had not. The authors conclude that training is more likely to change a participant's perception of the phenomenal field rather than of the phenomenal self. Previously reported studies showing changes in the phenomenal self may be caused by reactions to the instrument rather than the effects of training as shown by the accompanying control group increases.

Greening, T. C., & Coffey, H. S. Working with an "impersonal" T Group. J. appl. Behav. Sci., 1966, 2 (4), 401-411.

The authors discuss their experiences as co-trainers and suggest some training strategies with a homogeneous T Group composed of trainees who shared the characteristic of relating to other people in an impersonal way. Roger Harrison's Person Description Instrument III for assessing concept preference in interpersonal perception was used to separate those "impersonal" subjects who preferred noninterpersonal rating scales in describing other people. Qualities such as competence, achievement, ambition, and independence, rather than love and intimacy characterize the "impersonal" responses. In the T Group, control was a consistent and strong, though not always conscious, issue. Significant learnings for the trainees seemed to come as a result of sharing feelings about their difficulties in relating personally to others, not a common topic in more heterogeneous groups. In heterogeneous situations where "personal" and "impersonal" participants were mixed, the "personal" people received significantly higher ratings on the three questions: Which three persons are most like you? Which three persons express their feelings most openly? Which three persons do you feel you can be most close and intimate with? But the "impersonal" participants received a higher rating, though not significantly so, on the question: Which three persons do you feel have gained the most from the laboratory?

Hanson, P. G., Rothaus, P., Johnson, D. L., & Lyle, F. A. Autonomous groups in human relations training for psychiatric patients. J. appl. Behav. Sci., 1966, 2 (3), 305-324.

This paper presents the use of instrumented training groups with psychiatric patients. Comparisons and contrasts are drawn between these groups, leader-led groups, and more typical human relations training groups. In addition, five studies are presented evaluating the outcomes of instrumented training for patients. In general, the findings suggest that the laboratory improves patients' self-concept, reduces somatic complaints, reduces dependency, and increases their ability to cope with social problems. One nine-month follow-up study by mail compared 76 patients from a more conventional group therapy program with a similar group of 114 laboratory-trained patients. The trained group showed significantly more men employed at the time of follow-up, with a longer mean time of employment, despite fewer days in the treatment program. Laboratory participants showed a greater tendency to construe personal change in interpersonal terms. The bibliography contains a comprehensive

list of program descriptions and evaluation studies of training groups for psychiatric patients conducted by the authors.

Harrison, R. The impact of the laboratory on perceptions of others by the experimental group. Chapter 11 in C. Argyris (Ed.), Interpersonal competence and organizational effectiveness. Homewood, Ill.: Irwin-Dorsey, 1962.

This paper presents Harrison's Person Description Instrument and two experiments using this instrument. Eleven managers attending a sensitivity training workshop used the instrument to describe one another before and at the end of the laboratory. In addition, each participant described ten associates of his own choosing before and three months after the laboratory. Twelve control subjects also described ten associates at the same time interval. As predicted, the experimental group increased the number of interpersonal and emotional characteristics used in describing themselves, but contrary to prediction did not change in how they described their ten associates. A second experimental group composed of lower-level managers, however, did increase the number of interpersonal and emotional characteristics used to describe associates. The failure to find the predicted change in the first experimental group is used to underscore consistency demands of the organizational structure and of others in the organization.

Harrison, R. Cognitive change and participation in a sensitivity training laboratory. J. consult. Psychol., 1966, 30 (6), 517-520.

The Person Description Instrument, a modification of Kelly's Role Repertory Test, is used to test changes in concept preference in interpersonal perception. One hundred fifteen subjects, participants in a National Training Laboratories summer program, completed the instrument before, three weeks after, and three months after training. The instrument calls for subjects to develop concepts that describe their back-home co-workers. Responses were coded as inferential-expressive concepts (process or feeling oriented) or as concrete-instrumental concepts (observable and work oriented). Significant increases were found in the proportion of inferential-expressive concepts used. The changes were slight three weeks after training, increasing to significance three months after training. While no control data were obtained, the fact that there were significant positive correlations between concept change and ratings of active involvement in the training provides some internal indication that these changes were a function of the training. The study is taken as providing evidence that sensitivity training can affect the abstractness and complexity of concepts in interpersonal perception.

Harrison, R., & Lubin, B. Personal style, group composition, and learning, Part I. J. appl. Behav. Sci., 1965, 1 (3), 286-294.

This is an investigation of differences in interpersonal behavior and learning in a sensitivity training laboratory between highly person-oriented and highly work-oriented participants (identified through Harrison's Person Description Instrument III). Second, it is a study of the effects of a training design that involves both heterogeneous and homogeneous training groups.

It was expected and confirmed at satisfactory levels of significance that the person-oriented members would be seen as behaving more expressively and warmly and that they would be more comfortable and would feel stronger interpersonal ties within their homogeneous group than would the work-oriented members. It was expected, but with results approaching significance in the opposite direction, that person-oriented members would be seen as learning more than would work-oriented members.

It is hypothesized that the person-oriented group found the laboratory a kind of psychic home without much challenge, whereas the work-oriented members experienced "cultural shock," and that this, in fact, pushed them toward change. (Author abstract)

Harrison, R., & Lubin, B. Personal style, group composition, and learning, Part II. J. appl. Behav. Sci., 1965, 1 (3), 294-301.

To test the learning model developed in Part I, data were examined from a laboratory in which each participant was assigned to a heterogeneous training group and to an experimental group composed in terms of preference for high, low, or moderate structure. The statistical and impressionistic data collected through member ratings of one another and through interviews with staff and participants strongly suggest that homogeneous groups do not provide the confrontation needed for optimum learning. The superiority of the mixed high- and low-structure (and more stressful) groups in terms of member learning suggests that feelings of completion, cohesion, and emotional satisfaction may not be the appropriate criteria for evaluating the impact of a training group experience. (Author abstract. See also the abstracts of Baumgartel, 1961, and Greening & Coffey, 1966)

Harrison, R., & Oshry, B. Report to SAED of GESAED-BUHRC Training Study. Unpublished manuscript prepared for the Small Aircraft Engine Department of General Electric by the Boston University Human Relations Center, 1965.

This "nontechnical" report focuses on relationships between personal characteristics of individuals and the ways in which they respond to T Groups and training in a residential laboratory for SAED. Prior to training, participants completed a battery of tests which from factor analysis yielded patterns of cognitive and behavioral characteristics. Descriptions and ratings of T-Group behavior when subjected to factor analysis revealed three major criterion dimensions which were then compared to the personal, pre-laboratory, characteristics of the participants.

(1) People seen as high contributors to T-Group progress are those who react to organizational frustration by actively fighting personal authority rather than passively blaming the impersonal system, are sensitive to the power and position of people rather than to the genuineness and openness of people, and are seen by their superiors as high in initiating structure. (2) People seen as learning and changing most in the T Group are those who are described by colleagues as open to the ideas of others, tolerant and accepting of others, listening with understanding to what others say, and those who do not attribute organizational problems to the inadequacies of others or of the organization.

The training did affect organizational behavior in that participants were seen as expressing more feelings and being more receptive to ideas and feelings in staff meetings. The authors conclude that the individual changes were further developments of interpersonal styles which were revealed by pre-training measures, rather than as reversals of basic style preferences.

Harrison, R., & Oshry, B. The impact of laboratory training on organizational behavior: Methodology and results. Unpublished manuscript, National Training Laboratories, Washington, D. C., 1966.

The authors present the Organizational Behavior Describer Survey (OBDS), an instrument to assess behavior orientations relevant to group and interpersonal situations, and then use the instruments to test pre-post training laboratory changes. The instrument, derived from Argyris' theory of interpersonal behavior in organizations, is composed of four subscales: rational-technical competence, verbal dominance, consideration, and emotional expressiveness, and can be filled out as a self-description or as a description of a specific other. Means of pre-post changes indicate that the laboratory significantly affected the verbal dominance and emotional expressiveness dimensions. The range of individual scores was large enough to undertake an analysis of differential effects on participants. Both the degree of involvement in the laboratory and the characteristic personal style of group behavior (control, dependence, fight, support) seem to be related to specific kinds of changes in the OBDS.

House, R. J. T-Group training: A review of the empiric evidence and an appraisal. Unpublished manuscript, Bureau of Industrial Relations, The University of Michigan, 1964.

This critical look examines the scientific and ethical grounds for selling and distributing T-Group training. The underlying assumptions and theory of which the T-Group method has been developed are found to be poorly defined and of questionable validity. The research evidence, Dr. House concludes, shows that there are both positive and negative effects of training and that little is known about the process of training. There are also several ethical questions raised: (1) the violation of privacy since few subordinates have a real choice of whether to attend and do not really know what they are getting into, and (2) the legitimacy of subjecting people to the acknowledged anxiety produced by the T Group. It is recommended that commercial distribution of T-Group services be discontinued and that controlled experimental research be continued on carefully selected and guarded subjects. To support his thesis, House reviews and abstracts 16 reports of research on the processes and outcomes of T-Group training.

Kassarjian, H. H. Social character and sensitivity training. J. appl. Behav. Sci., 1965, 1 (4), 433-440.

The social character dimension of inner-other-direction has been theoretically related to sensitivity training. This research looks at the effect of sensitivity training on inner-other-direction. Forty-six senior and graduate students, divided into six training groups, were compared with like control subjects on the I-O Social Preference Scale, a measure of inner-other-direction. The reliable and adequately valid I-O scale was administered before and after the semester of sensitivity training classes. Pre-tests show no difference between trained and control groups, except that adults tend to have higher (more inner-directed) scores. The means and variances of difference (pre- minus post-) scores also show no difference between trained and control groups. Individual training groups, sex groupings, and extreme I-O subjects also showed no consistent differences. The author concludes that sensitivity training does not affect the inner-other-directed variable, at least at the level of social character at which the I-O Social Preference Scale measures.

Kernan, J. Laboratory human relations training -- Its effect on the "personality" of supervisory engineers. Doctoral dissertation, Department of Psychology, New York University, 1963.

This research attempts to find personality variables affected by laboratory training. Forty experimental subjects and 20 control subjects were tested before and after a three-day laboratory for engineering supervisors which had previously been shown to produce on-the-job behavior changes. Twelve hypotheses were formulated from an analysis of research results and training theory. Fleishman's F Scale, the TAT, and several other measuring instruments were used. None of the 12 hypotheses was supported and no significant differences were found in 11 other variables measured. The only significant findings were that the number of words used to relate TAT stories decreased and the Machiavellian scores increased after training. Even these results are unclear since they may be due to training or to the different conditions under which the pre- and post-tests were given.

Kolb, D. A., Winter, Sara K., & Berlew, D. E. Self-directed change: Two studies. J. appl. Behav. Sci., in press.

Self-directed change, where a person sets a specific change goal and works to meet that goal, is hypothesized to be facilitated by (1) the degree of commitment to the personal change goal, and (2) the amount of feedback of information relevant to the personal change project. These two variables were studied experimentally and correlationally during two semester-long T-Group courses involving four T Groups each semester. All students were encouraged to choose personal change goals related to their behavior in the group, to make ratings of their progress toward their goal after each T-Group session, and to write a paper, independent of the course grade, evaluating their progress toward their change goal. Judges rated the papers on the degree of self-perceived change. In the first semester course, two

T Groups were told that the projects were to be carried out independently (no feedback), while the other two groups were encouraged to discuss their change projects in the group (feedback). During the second semester course, all students were encouraged to discuss their projects. In addition, the commitment to the change project was heightened through writing papers on the "ideal self," the "actual self," and the discrepancies between the two, prior to selecting the change goal. Results indicate that feedback and commitment combine to produce the greatest percentage of high self-perceived change--five per cent in the no feedback, low commitment groups; 44 per cent in the feedback, low commitment groups; and 61 per cent in the feedback, high commitment groups. There was a significant difference in the level of commitment to the change goal between the two semesters. Independent of condition, high commitment was significantly related to high self-perceived change and to trainer's rating of change. During the first half of the course, the amount of feedback received relevant to the change goal is unrelated to the amount of change, yet the amount of feedback during the second half is significantly related. This finding suggests that feedback coming during the second half of the course is more effectively utilized. In sum, both the level of commitment and the amount of relevant feedback affect the degree to which a personal change project is successful. (See Winter, Griffith, and Kolb abstracted below.)

Lakin, M., & Carson, R. C. Participant perception of group process in group sensitivity training. Int. J. Group Psychother., 1964, 14, 116-122.

Various theories of group development related to sensitivity training have been posited. Essentially, these theories state that group process changes over time or, in the case of Bennis and Shepard, passes through sequential stages. The authors investigate the extent to which participants in a sensitivity training group perceive changes in the group process. Data were collected from 29 persons in four randomly constituted T Groups at a two-week residential training laboratory conducted by a state mental health agency. Members of the four groups provided ratings of intensity of group concern for each of 11 variables for each of the 16 T-Group meetings. There are significant variations in the ratings across the 16 meetings, and the four groups varied in regard to the "timing" at which particular variables gained and lost ascendancy in the sequence of meetings. The group meeting means differed maximally on the "talk or feeling about group atmosphere" variable; some groups emphasized this area early, while others emphasized it at the midpoint or late in the training experience. The "competitiveness" variable showed a linear decrease over the 16 meetings, while the concern with "cooperation" showed a linear increase. The other variables showed no discernible trends. While the perceived dimensions of cooperation and competition show a strong relationship to the progression of T-Group meetings, the authors are struck by the between-T-Group differences and conclude that each T-Group experience is more unique than it is standard.

Massarik, F., & Carlson, G. The California psychology inventory as an indicator of personality change in sensitivity training. Master's thesis, University of California, Los Angeles, 1960.

The authors found only slight changes in the California Psychological Inventory scores of subjects tested before and after 48 hours of training, although the changes were in the expected directions of increased spontaneity and slightly lowered overall control. (Reported by Dunnette, M.D., in Farnsworth (Ed.), Annual Rev. of Psychol., 1962, p. 285.)

Miles, M. B. Learning processes and outcomes in human relations training: A clinical-experimental study. In E. Schein & W. Bennis (Eds.), Personal and organizational change through group methods. New York: Wiley, 1965. Pp. 244-254.

Thirty-four elementary school principals attending a two-week NTL laboratory were used as the experimental population against two control populations, a matched pair group and a random sample (n = 148) of elementary principals. Nineteen predictor variables and six criterion variables were assessed at one of four contact points with the subjects: prior to, during, three months after, and eight months after the laboratory. Personality factors such as ego strength, flexibility, and need affiliation; organizational factors such as the power and security of the principal; and certain laboratory participation factors such as

the desire for change, unfreezing, involvement, and feedback reception are inter-correlated and correlated with three change measures: self-perceived change taken at the laboratory, a trainer rating of change taken at the laboratory, and a self- and job associate-perceived change, measured in the job situation after the laboratory. The measure of on-the-job change assesses 73 per cent of the laboratory-trained principals as changing against a base rate of change established at 17 per cent and 29 per cent by the two control groups. The author develops theoretical links between the various predictor and criterion variables.

Miles, M. B., Milavsky, J. R., Lake, D. G., & Beckhard, R. Organizational improvement: Effects of management team training in Bankers Trust. Unpublished monograph, Personnel Division, Bankers Trust Company, New York, New York, 1965.

This study evaluates the organizational effects of a management training program conducted with three low-production, low-morale divisions. After attending some off-site sensitivity training laboratories, managers in these divisions formed "family" groups for three off-site weekend team training laboratories held six months apart with periodic luncheon meetings interspersed. The weekend laboratories dealt with interpersonal and organizational matters. The impact of this training on the organization was evaluated independently. Before and after measures of attitudes toward work, morale and effectiveness, interactions with others on the job, perception of the section head's behavior, personnel turnover, absenteeism, and productivity were taken on the divisions in training and on several control divisions. The measures demonstrate that the divisions in training changed their attitudes and improved their productivity. Interviews with the managers in training indicated some of the specific ways in which these changes occurred.

Oshry, B. I., & Harrison, R. Transfer from here-and-now to there-and-then: Changes in organizational problem diagnosis stemming from T-Group training. J. appl. Behav. Sci., 1966, 2 (2), 185-198.

The authors address themselves to the question, "Does the inward orientation of the T-Group experience turn outward and have significance for the participant's work world?" A Problem Analysis Questionnaire (PAQ), designed to measure diagnostic style in individual patterns of analyzing interpersonal work problems, was administered to 46 participants at the beginning and the end of a two-week laboratory for middle managers. Analysis of the questionnaire suggests that at the end of the laboratory (before re-entering his back-home organization) the participant perceives: (1) his work world as more human and less impersonal; (2) clearer connections between how well interpersonal needs are met and how well the work gets done; (3) himself more clearly as the most significant part of his work problems; but (4) he perceives no clear connection between his new perceptions and how he translates these into action. The authors conclude that diagnostic orientations learned about the self in relation to the T Group do generalize to learnings about the self in relation to work. In a footnote, the authors report that these findings were replicated at a second management work conference but not at a problem-solving (non-T-Group) conference. They suggest that these changes are more likely to come about in programs where the individual's own behavior in the program is a legitimate object of study.

Pearse, R. Unstructured learning in a structured environment: Some problems and solutions in an undergraduate business school. Paper read at Eastern Psychol. Ass., New York, New York, April 1966.

This case study traces the four-year history of a human relations course given to undergraduate students in the Boston University College of Business Administration. The content of the year-long course, the subjective evaluations of the staff, and other "more objective" evaluation criteria are given for each year. In general, the course has become more structured both in input and output--using more instrumented techniques and skill exercises, to the apparent greater satisfaction and learning of the students.

Peters, D. R. Identification and personal change in laboratory training groups. Unpublished doctoral dissertation, Alfred P. Sloan School of Management, M.I.T., 1966.

Identification by laboratory participants with their T-Group trainer is hypothesized to be a major factor influencing the learning process leading to personal change. Specifically, because of identification, members strive to be more like the trainer. These consequences, taken as an indication of attitudinal identification with the trainer, were assessed through direct, indirect, and projective instruments. It was found that the members' self-concept, as measured on a semantic differential, increasingly converged with their concept of the trainer and with the trainer's self-concept. This convergence occurred for most members in each of six T Groups tested during both weeks of a laboratory and did not occur in a non-equivalent control group. The degree of self-concept convergence was significantly related to two criteria of the participant's personal learning and change within the laboratory. There was support for the corollary hypothesis that the more objective similarity between the member and the trainer, the stronger this relationship between convergence and change; men (same-sex identification) showed the relationship much more strongly than women (cross-sex identification), and the more similar the occupational backgrounds, the stronger the relationship. An ancillary finding supported the Burke and Bennis finding that there is a significant convergence of the self-concept and ideal concept during the laboratory while, in this study, the control group showed no such change.

Powers, J. R. Trainer orientation and group composition in laboratory training. Unpublished doctoral dissertation, Case Inst. of Tech., 1965.

This investigation examines hypotheses that describe the relationships among (1) group composition, (2) trainer orientation, (3) participants' perceptions of trainer, and (4) participants' self-perceptions. The basic dimensions of both trainer orientation and group composition were determined, using FIRO-F. A resource orientation (high desire to give) and a need orientation (high desire to receive) were derived for participants and trainers.

Forty-nine participants and five trainers in an NTL 1962 advanced laboratory were studied in two situations -- homogeneously composed groups using common orientations and heterogeneously composed groups with differing orientations. Trainers were matched with particular homogeneous groups and randomly assigned to heterogeneous groups. Data were collected on participants' perceptions of their trainer in both group situations over time.

The results indicate that participants perceived resource-oriented trainers more positively than need-oriented trainers. The results also indicate that particular homogeneous groupings matched with particular trainer orientations and behavioral styles are more effective in providing a laboratory learning climate than other matchings. A model is presented for integrating the results of this study. (Dissertation abstract)

Psathas, G., & Hardert, R. Trainer interventions and normative patterns in the T Group. J. appl. Behav. Sci., 1966, 2 (2), 149-169.

The authors studied the trainer as a contributor to the development of norms in the T Group. Through analysis of tape recordings, observer's notes, and recall of significant trainer interventions by participants, the authors developed 11 norm-categories into which trainer interventions may be classified. The categories are predicated on the assumption that trainer interventions contain implicit norm-messages indicating to members which norms should be established. The norm-categories concern: (1) feedback, (2) feelings, (3) acceptance concern, (4) analyzing group interaction or process, (5) goal and task concern, (6) behavior experimentation, (7) leadership behavior, (8) member participation, (9) trainer membership and authority problems, (10) decision making, and (11) structure concern. Definitions and examples of each norm-category are given. Analysis of significant interventions in seven T Groups in a 1962 NTL summer laboratory show wide differences in the emphasis put on different norms. The authors propose that the differences observed between T Groups may result from differences in the trainer's ideology and style or from differences in the group's development or concern.

Rubin, I. Increased self-acceptance: A means of reducing prejudice. J. pers. soc. Psychol., 1967, 5, 233-238.

This paper tested the hypothesis that an individual's level of anomy and his changes in self-acceptance during a laboratory training would have an interactive effect on the level of acceptance of others, with low anomy and high self-acceptance leading to high acceptance of others. Experimental subjects attending a Boston University two-week sensitivity training program at Osgood Hill, Massachusetts, and also serving as their own controls, were tested two weeks prior to, at the beginning of, and at the end of the laboratory experience on measures of self-acceptance (admitting the personal relevance of ego-threatening material), anomy (McClosky and Schaar's scale of psychological anomy), and acceptance of others (a "human heartedness" scale). Analysis of the data by partial correlations offered substantial support for the hypothesis.

Schutz, W. C., & Allen, V. L. The effects of a T-Group laboratory on interpersonal behavior. J. appl. Behav. Sci., 1966, 2 (3), 265-286.

This is a study of changes made by 71 participants during and after the 1959 Western Training Laboratory in Human Relations. The FIRO-B instrument, measuring a person's expressed and desired inclusion, control, and affection in interpersonal relations, was administered at the beginning, at the end, and six months after the laboratory. Similar measurements were taken on a control group who had no intervening experience. Correlations among the various administrations for experimental and control subjects show that control subjects are significantly more consistent. The data, supported by open-ended follow-up questionnaires administered six months after the laboratory, suggest that participants change during the laboratory and that, after the laboratory, participants continue to initiate and effect change. The hypothesis that the laboratory changes people selectively, depending on their initial personality (the overly dominant become less dominant, while the overly submissive become more assertive) also receives support. Content analysis of the follow-up questionnaires also reveals the specific kinds of changes that participants perceive in themselves.

Seashore, C. An evaluation of staff development and human relations workshops conducted by The Ford Foundation in West Africa, 1961-1963. Mimeographed manuscript, National Training Laboratories, Washington, D.C., 1965.

The Ford Foundation developed and conducted ten one-week staff development and human relations training laboratories for governmental and industrial managers in Ghana and Nigeria. A comprehensive interview was conducted with approximately half of the laboratory participants (n = 102) during the year after the laboratory. Ninety-nine per cent of the managers saw specific changes they had made which they attributed to the workshop program; fully 70 per cent spontaneously described four or more different kinds of changes. The background of the participants is not related to the benefit received from the workshop, but the specific workshop variables such as the staff person worked with, the amount of activity of the staff person, attitude toward the staff, and whether or not they had attended a second workshop do tend to affect the overall benefit received by participants. In the work setting, improvement is felt by participants most strongly in the areas of interpersonal relationships, communication, administrative skills, and staff teamwork, but less so in sensitivity, self-confidence, risk taking, and self-insight. People with a lower educational level reported more changes in self-confidence and risk taking, and people in private business and public corporations reported more changes in administrative skills and teamwork with staff than did people in government. Sixty per cent of the sample reported that as a result of the workshop their family relationships had improved along the dimensions of communication, teamwork, and sensitivity to family members.

Sherwood, J. J. Self-identity and referent others. Sociometry, 1965, 28, 66-81.

Some relationships between self-identity and the social environment were explored in a natural experiment with human relations training groups from 1961 NTL summer laboratories. Changes in self-identity (self-concept) were measured with bipolar adjective rating scales,

and these changes were related to similar ratings provided by group members. The major proposition is that the individual's self-identity (and his self-evaluation) is dependent upon his subjectively held version of the peer group's actual ratings of him, i.e., self-identity is a function of subjective public identity, which is, in turn, a function of objective public identity. Changes in self-identity were found to follow this pattern; but, as predicted, these changes were dependent upon (a) the differential importance of various peers for the individual, (b) the extent to which peer perceptions were communicated to him, and (c) the individual's degree of involvement in the group. (Author abstract)

Sikes, W. W. A study of some effects of a human relations training laboratory. Unpublished doctoral dissertation, Purdue Univ., 1964.

Twelve men in an industrial management Master's degree program who had completed a T-Group laboratory were used in an experimental study. During two small-group discussion sessions, five and seven months after the end of the T Group, pairs of trainees were placed with four control subjects. At the end of a discussion, each subject ranked each of the other members of his group on five performance factors and then predicted how he was ranked by each of the other members. The specific hypotheses being tested were that those who had received T-Group training would (1) be more accurate in predicting the responses of other members in the group, and (2) be perceived by other members of the discussion group as being more effective participants. The first hypothesis was confirmed in the first session, but not in the second. The second hypothesis received support in both sessions. Additional measures on these men were taken: pre- and post-training self-concept data did not distinguish them from their classmates; ten of the 14 men studied ($p < .10$) had grade averages above the median after the first semester, but the average academic performance of the other students rose to the same level by the end of the second semester.

Smith, P. B. Attitude changes associated with training in human relations. British J. soc. clin. Psychol., 1964, 3, 104-112.

Changes in attitudes toward social behavior were assessed for members of human relations training groups and for control groups which discussed social psychology in management. Scores on Schutz's FIRO, a test of orientation to interpersonal relations, especially on the scales assessing control behavior (concerned with power) and affection behavior (concerned with close interpersonal relations), were compared before and after training. The principal dependent variable was the match or mismatch between the "expected score," measuring how much the subject wants to show the behavior, and the "wanted score," measuring how much the subject wants to receive the behavior. The results show that the experimental subjects change significantly more than the control subjects in the direction of a better match between the expected and wanted scores on both the control and affection behaviors. Additional data show that the FIRO scores will predict how subjects will be rated by other members on these two behavior dimensions.

Smith, P. B. T-Group climate, trainer style, and some tests of learning. Unpublished manuscript, School of Social Studies, Univer. of Sussex, England, 1966.

A complex model of laboratory training is used to test a theory of learning based on Kelman's three processes of influence -- compliance, identification, and internalization. Differences in group climate determined by the members' relative orientation to authority (control), data (feedback), and people (affection and intimacy) are hypothesized to interact with different kinds of training styles, measured on the same three dimensions, to produce different kinds of learnings. Four different criteria of learning were measured: (1) changes on Schutz's FIRO-B questionnaire, measuring attitudes toward control and affection behavior; (2) the amount of interpersonal awareness achieved by the group; (3) the trainer's evaluation of the group's success; and (4) a test of the diagnostic ability of group members. The data were collected from 31 T Groups conducted in differing situations (age and occupational background of members, duration, number and styles of trainers) over the space of three years.

The results support the conclusion that differences in climate and style lead to quite different training outcomes. Kelman's trichotomy of influence mechanisms formed the basis from which predictions were derived. The "compliant" learning pattern, found among groups with authority-oriented trainer style and group climate, showed the highest diagnostic ability scores. The "internalizing" learning pattern, found among groups with a data-oriented climate and a people-oriented trainer style, showed the greatest favorable change on FIRO-B and the highest interpersonal awareness. In addition to identifying the importance of these variables and supporting the theoretical linkages between them, this study demonstrates that a "laboratory" is not a unitary phenomenon; differences within a laboratory are important enough to create measurably different kinds of experiences and outcomes.

Underwood, W. J. Evaluation of laboratory-method training. Training Directors J., 1965, 19 (5), 34-40.

Fifteen experimental subjects, participants in an inservice training laboratory, were compared with 15 matched control subjects on change reports submitted by observer-associates. Changes were classified as interpersonal, personal, and nonpersonal and plotted over time. Experimental subjects were seen as making many more interpersonal and personal changes than the control subjects. In time, the greatest number of changes in the experimental subjects occurred at the end of and just after the laboratory experience.

Valiquet, M. I. Contribution to the evaluation of a management training program. Unpublished Master's thesis, Alfred P. Sloan School of Management, M.I.T., 1964.

This thesis evaluates the attitude and behavior change outcomes resulting from an internal development, laboratory program conducted by the General Electric Company. The methodology used was taken from Miles and from Bunker and essentially replicates these studies. A random sample of 60 experimental (trained) subjects chosen from four different company locations, a group of matched control subjects, and five describers (peers, superiors, and subordinates) for each subject completed an "open-ended perceived-change questionnaire" assessing changes in the subjects' post-training behavior. The 21 Bunker content categories were used in the analysis. The results indicate that: (a) significantly more experimental subjects evidenced change toward the training goals, (b) experimental subjects had significantly more verified change, where two or more describers concurred, and (c) participants changed most in the areas of improved democratic leadership, risk taking, adaptability, and insight into self and role. Subanalysis of the experimental subjects indicated that training had been more successful in one of the departments and less successful in another.

Wallen, R. W. Changes in learning goals and self-perceptions of human relations trainees. Unpublished manuscript, Personnel Research and Development Corporation, Cleveland, Ohio, 1961.

Participants in a 1960 Management Work Conference filled out 14 training-relevant, self-description scales before and after training, and indicated on which dimensions they desired to change. The two most improved characteristics were learning to listen and learning to express emotions more fully. Persuasiveness, insight into oneself, learning to accept direction from others, taking charge of a group, learning to take evaluation, and behaving in a warmer way toward others showed small, unreliable changes. Expressed goals for change were also analyzed. The relative popularity of the initial goals was quite similar to the relative popularity of final goals. There is some evidence, however, that learning to express emotions and to accept direction from others became more important to many of the participants as the conference progressed. Goal setting shows no clear relationship to perceived change. It appears to be relevant in some instances, but not in others. (Author abstract)

Winter, Sara K., Griffith, J. C., & Kolb, D. A. The capacity for self-direction. Working Paper 245-67, Alfred P. Sloan School of Management, M.I.T., 1967.

This study compares self-descriptive essays written by business school students who were subsequently successful (N=13) and unsuccessful (N=11) in attaining personal change

goals during semester-long self-analytic (training) groups, using a new method for self-directed behavior change. Content analysis comparisons of the two groups revealed three significant differences: (a) High-change subjects more frequently stated goals with implicit recognition that the goal had not yet been attained; (b) Low-change subjects more frequently described themselves with little recognition of alternate possibilities; (c) Low-change subjects were higher in tentativeness and uncertainty about themselves ("identity diffusion"). These findings were then cross-validated in a second sample of students who were successful (N=9) and unsuccessful (N=22) in reaching their change goals.

The results are interpreted as suggesting that successful self-directed personal change is motivated by awareness of the cognitive dissonance which is created when an individual commits himself to a valued goal that he sees as different from his present behavior. The low-change subject is one who does not create cognitive dissonance in the process of setting personal goals, either (a) because the goal is imperfectly differentiated from present behavior, or (b) because he can tolerate an unusually great amount of internal self-contradiction without experiencing dissonance. (Author abstract; see Kolb, Winter, and Berlew abstracted above.)

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